

Teachers' Extent of use of Teaching Strategies that Impact on the Thinking Skills of Learners

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Abstract Successful acquisition of critical thinking skills empowers individuals for decision making and to a large extent contributes to their development. This study focused on strategies primary school teachers apply in impacting critical thinking skills on learners, the problems they encounter in the learning event and solutions they perceive can solve the problems. The area of the study was Anambra State in Nigeria. The design of the study was survey. 6874 teachers constituted the population; random sampling was used to select a sample of 567 teachers used for the study. Three research questions guided the study. The reliability test using Pearson Product Moment Correlation in coefficient yielded 0.75, 0.69, and 0.77. Mean scores were used to answer the research questions. Results showed that teaching strategies such as advising learners to explore alternatives before reaching decisions, providing opportunities for learners to think out problems and proffer solutions; and encouraging learners to explore concepts amongst others are not applied by teachers. Some of the problems teachers encounter include the curriculum not encouraging experiential learning, learners not spending quality time on reflection and learners viewing use of analytical approach to obtaining information as unnecessary. Some solutions teachers perceive can solve problems they encounter include provision of appropriate instructional materials; assessment to focus on analytical task and encouraging learners to ask questions. The researchers therefore recommend that the government should provide instructional materials and teachers should learn to improvise instructional materials. Teachers should also be properly trained to possess quality pedagogical skills to empower learners to acquire critical thinking skills. Implications of the study were highlighted.

Keywords: Teacher, learners, teaching strategies and thinking skills.

1. Introduction

The learning process cannot be complete if it does not involve activities that trigger the learner to think critically. Chaffee (2000) defines critical thinking as making sense of the world by carefully examining the thinking process to clarify and improve our understanding. Thinking critically is thinking about one's thinking so that one can clarify and improve his thinking. Education trains individuals, instilling in them skills that enable them solve the diverse problems or challenges that come their way. The program of instruction is

determined by the teacher and it is the sole responsibility of the teacher to meet the learning needs of the individual learners. The responsibility of the teacher is not only to organise the program of instruction but also ensure it is enriched with activities that encourage experiential learning with each child working independently and sometimes in groups. According to Kolb (1983) for a teaching strategy to be adjudged effective, it must be able to impact the following skills in the learner:

- i. The ability to cope with the demands of life.
- ii. The ability of the learner to use many methods to solve problems.
- iii. The ability to develop learner's personality.
- iv. Empowers the learner to master content of instruction and be able to transfer knowledge.

Kolb believes that quality teaching should expose learners to problems in a variety of contexts, lengths and levels of difficulty. Kolb's teaching model consists of four cycle viz concrete experience (feeling), reflective observation (watching and listening), abstract conceptualisation (thinking) and active experimentation (doing). This model presents a learning event where the learner is an active participant. The learner feels the instructional materials, perceives own feels, watches and listens to the teachers, is given the opportunity to think-weighing own perceptions with teacher's views on the same concept under study and is given the opportunity to do (application). Opportunity 'to do' exposes learners to making mistakes and correcting themselves through a thinking process which leads them to mastery. The teacher should provide the opportunity for this thinking so that the learner through weighing many alternatives can arrive at the correct answer. The ability of the teacher to impact critical thinking skills on the learner depends on the teaching strategies the teacher applies. Henak (1992) describes four major teaching strategies namely divergent, assimilative, convergent and accommodative. According to Henak, divergent teaching emphasizes exercising creativity and exploring many alternatives, assimilative teaching encourages logical reasoning and using analytical approach, convergent teaching values practical learning and concrete experiences while accommodative teaching encourages free expression of self by learners. Each of these teaching strategies unfolds into multiple skills which impact learning on the learner through the process of thinking. No teacher uses one single strategy (Kaplan and Kies, 1998). A combination of these teaching strategies takes the learner through diverse logical thinking processes to grasping the information or idea under discourse. Empirical findings (Holt, 1999; Karl, 2001; Kraft, 1996; Entwistle and Breman, 1998) have shown that teachers who combine teaching strategies produce learners with better thinking ability. Individuals are empowered when they are equipped with the necessary thinking skills and knowledge which would make them self reliant and part of nation building (Chaffee, 2000).

Oloh (2009) opines that the educational scene in Nigeria is problematic because it appears more emphasis is placed on content delivery rather than on the 'how' of content delivery and learning. The 'how' of content delivery and learning is critical not only to knowledge and skill acquisition but also to acquisition of critical thinking skills which empower individuals to make good decisions in life. A learning event which does not emphasise the 'how' of teaching and learning cannot train learners to acquire critical thinking skills. Teachers cannot achieve this without experiencing some constraints which they should strive to solve.

Anyachebelu (2003), bemoans the observation that present day learners cannot make good decisions because they lack problem solving skills; a deficiency that has adversely affected practically most of their behaviour within and outside the classroom. Without critical thinking, individuals cannot make good decisions and cannot learn effectively. The purpose of this study therefore is to investigate the extent teachers use teaching strategies that impact on the thinking skills of learners, the problems they encounter and their perceptions of solutions to such problems.

2. Research questions

1. What is teachers' extent of use of teaching strategies that impact on the thinking skills of learners?
2. What are the problems they encounter using such teaching strategies in the teaching?

3. What are teacher's perceptions of solutions to the problems they encounter in teaching?

3. Methods

The design of the study was survey. The area of the study was Anambra State. Three research questions guided the study. Random sampling technique was used to select 567 teachers from a population of 6874. A 35 item researchers' developed questionnaire was used for the study. The instrument had four parts labelled A, B, C and D. Part A elicited demographic information, part B had fifteen items on teaching strategies impacting thinking skills which were items for research question one. They were structured on four point rating scale of Always (A, 4points); Almost Always (AA, 3points); Occasionally (O, 2points) and Never (N, 1point, part C had ten items on problems teachers encounter in teaching while part D had five items on teachers' perceptions of solutions to the problems they encounter in teaching. Parts C and D had items for research questions two and three which were both structured on four point rating scale of Strongly Agree (SA, 4 points), Agree (A, 3points), Disagree (D, 2points) and Strongly Disagree (SD, 1 point). The reliability test of the instruments using Pearson Product Moment Correlation coefficient yielded 0.80, 0.69 and 0.76 respectively; the researchers considered the instruments reliable because of the high reliability coefficient. Respondents were required to tick against the column that applies to them. Mean scores were used to answer the research questions. Mean scores 2.50 and above were accepted while below 2.50 were rejected.

4. Results

The tables are presented in the order of the research questions.

Table 1: Teachers' Mean Responses on the Extent to which they use Teaching Strategies that Impact on Learners Thinking Skills

S/N	Item	x	Decision
1.	I train learners to be orderly in their presentation	2.58	Accepted
2.	I advise learners to explore alternatives before reaching decisions	2.47	Rejected
3.	I encourage learners to assess issues according to their personal perceptions	2.61	Accepted
4.	I provide opportunities for learners to think out problems and proffer solutions	2.36	Rejected
5.	I encourage learners to explore concepts	2.41	Rejected
6.	I give learners the opportunities to analyse causes and effects	2.76	Accepted
7.	I ask questions that require thorough reflection	2.71	Accepted
8.	I give learners opportunities to relate to real life experiences	2.66	Accepted
9.	I encourage learners to find solutions to current issues and problems.	2.58	Accepted
10.	I encourage learners to listen to other people's points of view	2.46	Rejected
11.	I advise learners to produce lots of drafts before settling on the final version	2.54	Accepted
12.	I teach application of logical sequence in obtaining information	2.51	Accepted

13.	I encourage learners to judge situations based on their personal convictions	2.33	Rejected
14.	I encourage learners to pay meticulous attention to details	2.29	Rejected
15.	I encourage learners to generate multiple ideas and brain storming potential solutions to complex problems	2.61	Accepted

Table 1 above shows that teachers never use items 2, 4, 10, 13 and 14 in teaching. These teaching strategies scored 2.47, 2.41, 2.46, 2.33 and 2.29 respectively while the rest of the items are used in teaching. They all scored above 2.50.

Table 2: Teachers' Mean Responses on Problems they encounter in Using Teaching strategies that impact on learners thinking skills

S/N	Item	x	Decision
1.	The curriculum does not encourage experiential learning	2.55	Accepted
2.	Learners are not able to explore certain concepts on their own	2.61	Accepted
3.	Learners view use of logical approach to obtaining information as unnecessary	2.51	Accepted
4.	Learners do not pay meticulous attention to details	2.64	Accepted
5.	Learners do not spend quality time on reflection	2.53	Accepted
6.	Time-on-task is inadequate for quality teaching and learning	3.01	Accepted
7.	Contemporary societal values distract learners' interest in learning to do things themselves	2.56	Accepted
8.	Learners dislike analytical works	2.54	Accepted
9.	Learners view comparative work as burdensome	2.71	Accepted
10.	Learners are ignorant that critical thinking skills are acquired through learning	2.81	Accepted

Table 2 above shows that teachers accepted that all the items are problems they encounter while teaching. All the items scored above 2.50.

Table 3: Teachers' Mean Responses on their Perceptions of Solutions to Problems they encounter in teaching.

S/N	Item	x	Decision
1.	Provision of adequate and appropriate instructional materials	2.63	Accepted
2.	Encourage experiential learning	2.61	Accepted
3.	Increase time on task	3.03	Accepted
4.	Assessment should focus on analytical tasks	2.81	Accepted
5.	Encourage following tasks through the end	2.77	Accepted

6.	Encourage learners to ask questions	2.71	Accepted
7.	Encourage learners to generate questions while they read	2.66	Accepted
8.	Encourage learners to give answers that exhibit accurate and thorough reflection	2.54	Accepted
9.	Learners should be assessed based on questions that involve active experimentation	2.51	Accepted

Table 3 above shows that teachers perceived all the items to be solutions to the problems they encounter in teaching. All the items scored above 2.50

5. Discussion

Result of research question one shows that teachers do not advise learners to explore alternatives before reaching decisions, teachers do not provide opportunities for learners to think out problems and proffer solutions, they do not encourage learners to explore concepts, they do not encourage learners to listen to other people's points of view, they do not encourage learners to judge situations based on their personal convictions and they do not encourage learners to pay meticulous attention to details. These strategies teachers do not apply in teaching are some of the strategies which impact critical thinking skills on learners. Critical thinking skills are acquired, they are not natural endowments. An individual might inherit intelligence, if such is not exposed to situations that provide challenging opportunities to think, explore alternatives, listen to other people's points of view, and pick details before reaching a conclusion or decision. Development of critical thinking involves thinking actively, discussing ideas in an organised way, carefully exploring situations with questions, thinking independently, viewing situations from different perspectives with reasons and evidence. Teachers should use teaching strategies which impact critical thinking skills on learners. Success in acquiring critical thinking skills facilitates decision making, knowledge and skill acquisition and equips individuals to tackle future challenges in life. One of the objectives of education is to equip individuals with skills for problem solving; application of critical thinking gives rise to problem solving.

Result of research question two; shows that teachers accepted they encounter problems during teaching to impact critical thinking skills on learners. Teachers as programme of instruction designers should vary teaching strategies, explain to learners' benefits they stand to gain in the long run and instantly if they achieve well and acquire knowledge and skills. These would make learners reason along with their teachers and appreciate the reason to follow task through the end, to be analytical, develop love for comparative work, spend quality time on reflection, value being logical in obtaining information and paying meticulous attention to details. These are strategies that train individuals to develop critical thinking skills. Ebenebe and Unachukwu (1995), opine that when learners understand what they stand to gain in learning, they become more committed to their studies. Teachers are expected to explain the consequences of learning events as it makes the learner be engrossed in learning. Learning to do by oneself is very important; it implies that the teacher should provide concrete experiences. Experiential learning instills critical thinking skills far more than any other strategy. This is so because it provides opportunities for analysis, being logical, weighing other people's opinions, paying attention to sequence of action, or details, and making judgement by one's conviction or experiences. All these assist the learner to arrive at decisions. Decision making is a life – long activity; success in life depends largely in ability to weigh alternatives and choose the best.

Result of research question three shows that teachers perceived those items to be solutions to solving the problems they encounter in teaching. Teachers are expected to devote ample time to program design and delivery such that learner's interests are deeply caught to move them to appreciate the need to be analytical; to seek other alternatives to problems solving. The importance of instructional materials in the learning event cannot be over-emphasised. Effective learning cannot occur in the absence of instructional

materials. Time on task being adequate is very important. Effective teaching and learning cannot occur if enough time is not allotted to subjects on schedule for each day. Teaching and learning are not supposed to be haphazardly done if the needs of learners are to be met.

6. Conclusion

Critical thinking is very critical to the all-round development of individuals, and it increasingly aids individuals in decision-making throughout life. The extent to which it empowers individuals to tackle challenges and solve problems cannot be over-emphasised. It therefore becomes crucial that for learners to be empowered, teachers should embrace teaching strategies that impact on learners' thinking skills.

7. Implication of study

Findings of the study revealed that even though teachers use diverse teaching strategies, those ones critical to empowering learners to acquire critical thinking skills are not used by teachers. This implies that learners are not being equipped to be effective thinkers and good decision makers.

8. Recommendations

Based on the findings of the study, the following recommendations were made.

1. The government should provide instructional materials for teaching and learning. Effective teaching and learning cannot be achieved in the absence of instructional materials. Teachers should also learn to improvise instructional materials so that concrete experiences would be provided in the learning event. Concrete experiences make learning experiential and interesting; these facilitate knowledge and skill acquisition a great deal.
2. Teachers should be properly trained to possess quality pedagogical skills which would empower learners to acquire critical thinking skills. In effect, teacher training curriculum should be revised by curriculum planners with a view to integrating activities which empower learners with problem solving skills.

References

- Anyachebelu, F.E. (2003). *Teaching styles and learning styles in some Nigerian Universities*. Unpublished PhD dissertation. Nnamdi Azikiwe University, Awka
- Chaffee, J. (2000). *Thinking Critically*, Boston: Houghton Mifflin Company.
- Ebenebe, R.C. and Unachukwu, G.C. (1995). *Psychology of Learning*. Amawbia: Lumo Printing Press.
- Entwistle, C. and Breman, A. (1978). Students' Learning Preferences. *Journal of Psychology*, 2, 121 -124.
- Henak, R.M. (1992). Effective teaching addressing learning styles. *Journal of the Technology Teacher*, 16, 23 -26.
- Holt, P.C. (1994). Encouraging Effective Learning. *Journal of Psychology*, 5, 15-17.
- Kaplan, F.J. and Kies, D.A. (1998). Teaching styles and learning styles: which come first? *Journal of Instructional Psychology*, 22, 29 - 31.
- Karl, P.B. (1984). Learning to learn. *Journal of Educational Research*, 13, 206 – 209.
- Kolb, D. (1983). *Experiential Learning: Experience as the source of learning and development*. New Jersey: prentice Hall.
- Kraft, R.E. (1976). Analysis of students' learning styles. *Journal of Physical Education*, 33, 138 – 140.
- Oloh, J.J. (2009). *Thinking about your thinking*. New Jersey: Allyn and Bacon.

